

Claims

1. An electric transfer light emitting polymer that emits light by applying an electric field thereto, wherein chlorine (Cl) and the sum total (ΣM) of metal elements included in the polymer satisfy a relation of a below-described formula 1.

$$\Sigma M < Cl \quad \dots (1)$$

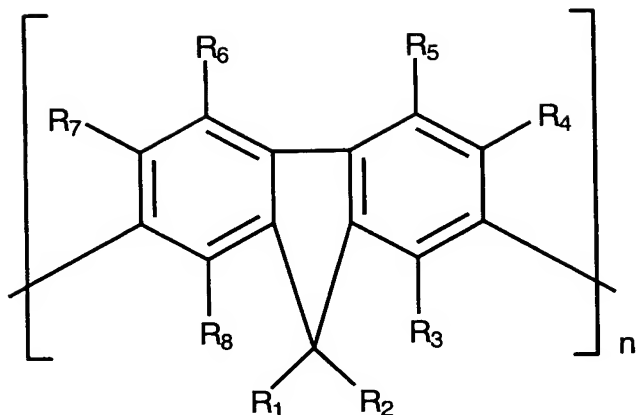
(In this case, ΣM designates the sum total of metal elements composed of one kind or a plurality of kinds between alkali metal elements, alkali earth metal elements, elements in the third period showing no anionic characteristics, elements in the fourth period showing no anionic characteristics and elements in the fifth period showing no anionic characteristics.)

2. The electric transfer light emitting polymer according to claim 1, wherein the chlorine content is 50 ppm or less.

3. The electric transfer light emitting polymer according to claim 1, wherein the metal elements are sodium, nickel and palladium.

4. The electric transfer light emitting polymer according to claim 1, wherein fluorene copolymers of one or more units that have a chemical structure shown in chemical formula 1 as a structural unit are included.

[Chemical formula 1]



(In the formula, n indicates a value not smaller than 1. To R_1 and R_2 , any one kind or a plurality of kinds of a hydrogen atom, an alkyl group, an alkenyl group, an alkynyl group, an aralkyl group, an aryl group, a hetero aryl group, an alkoxy group, an aryloxy group and an aliphatic heterocyclic group are introduced. To R_3 to R_8 , a hydrogen atom or an alkyl group is introduced.)

5. An organic electroluminescence element having on a substrate a first electrode layer, a light emitting layer having an electric transfer light emitting polymer that emits light by applying an electric field thereto and a second electrode layer in this order, wherein in the light emitting layer, chlorine (Cl) and the sum total (ΣM) of metal elements included in the electric transfer light emitting polymer satisfy a relation of a below-described formula 2.

$$\Sigma M < Cl \quad \dots (2)$$

(In this case, ΣM designates the sum total of metal elements composed of one kind or a plurality of kinds between alkali metal elements, alkali earth metal elements, elements in the third period showing no anionic characteristics, elements in the

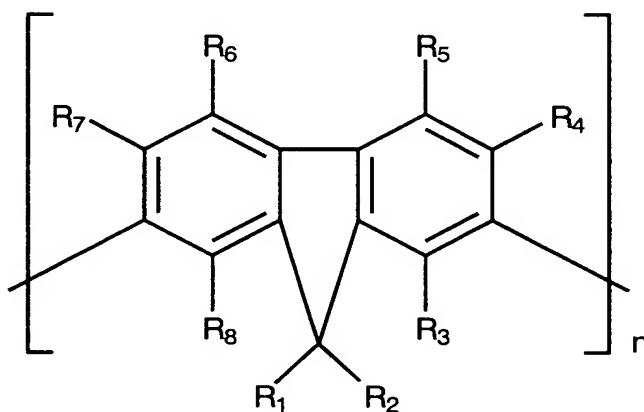
fourth period showing no anionic characteristics and elements in the fifth period showing no anionic characteristics.)

6. The organic electroluminescence element according to claim 5, wherein the chlorine content is 50 ppm or less.

7. The organic electroluminescence element according to claim 5, wherein the metal elements included in the light emitting layer are sodium, nickel and palladium.

8. The organic electroluminescence element according to claim 5, wherein the electric transfer light emitting polymer of the light emitting layer includes fluorene copolymers of one or more units that have a chemical structure shown in chemical formula 2 as a structural unit.

[Chemical formula 2]



(In the formula, n indicates not smaller than 1. To R₁ and R₂, any one kind or a plurality of kinds of a hydrogen atom, an alkyl group, an alkenyl group, an alkynyl group, an aralkyl group, an aryl group, a hetero aryl group, an alkoxy group, an

aryloxy group and an aliphatic heterocyclic group are introduced. To R_3 to R_8 , a hydrogen atom or an alkyl group is introduced.)